In the Claims

Please amend the claims as follows:

1. (Canceled)

2. (New) A time division multiplex data recover system comprising:

a reference clock generator generating a reference clock signal;

a phase frequency comparator having a first input connected to said reference clock generator, a second input and an output generating a voltage proportional to a difference in phase and frequency between a signal received at said first input and a signal received at said second input;

a voltage controlled oscillator having a voltage input connected to said output of said phase frequency comparator and plural outputs generating a corresponding signals at differing phases, each having a frequency proportional to a voltage received at said voltage input;

a data recovery block having an input receiving a time division multiplexed data signal and plural clock inputs, each clock input connected to a corresponding one of said plural outputs of said voltage controlled oscillator, said data recovery block deserializing the received time division multiplexed data signal;

a phase selection circuit connected to said data recovery block selecting two of said clock outputs of said voltage controlled oscillator adjacent in phase and generating an interpolation code dependent upon said data recovery error signals;

a phase interpreter having first and second clock inputs receiving said two clock outputs of said phase selection circuit, an interpolation input receiving said interpolation code and generating a single output signal of an interpolation of said first

and second inputs corresponding to said data recovery signals, said single output signal connected to said second input of said phase frequency comparator.

3. (New) The time division multiplex data recover system of claim 2, wherein:

said voltage controlled oscillator includes a ring oscillator having a plurality of differential input, differential output voltage controlled delay elements, said differential outputs of said voltage controlled delay elements forming said plural outputs of said voltage controlled oscillator.